

ABSTRACT OF THE DISCLOSURE

5           The present invention relates to a surgical access device comprising an elongate tubular member having a working channel and an axis extending between a proximal end and a distal end, a septum seal integrally formed at the distal end of the tubular member, and a zero seal disposed at the distal end of the tubular member and distal to the septum seal, the zero seal being sized and configured to seal when no instrument is  
10 in place within the working channel of the tubular member, and the zero seal being coupled to the septum seal and having properties to float with the septum seal relative to the tubular member. The tubular member may be formed from an elastomeric material. The tubular member has a wall that may be rigid or semi-rigid, and the tubular member may be reinforced with a coil along a portion of the tubular member. The  
15 tubular member may include a distal, mechanically deployable shielding portion. The zero seal may be a duckbill seal constructed with one or more intersecting sealing portions. The duckbill seal may comprise of opposing lip portions separated by a slit portion. The opposing lip portions are coated with or attached to a soft or occlusive material. The occlusive material is one of Kraton, polyurethane or the like. The  
20 occlusive lip portions allow a surgical item such as a suture to extend through the slit portion without disrupting the seal. In one aspect, the tubular member and the septum seal are molded together as a single unit and the zero seal is then bonded or fused to the septum seal. In another aspect, the tubular member, the septum seal and the zero seal are all molded together or integrally formed as a single unit. The tubular member  
25 may further comprise flexibility enhancing features to allow the tubular member to flex in response to a motion of a surgical instrument within the working channel of the tubular member.